Abstract

Title: Dependence of the air consumption and the position of the body on the selected method of diving kick and swimming speed

Objectives: The goal of this work is to find out the relationship between the diver's swimming speed and the air consumption while using two different methods of diving kicks – flutter and frog kick. At the same time, assess the dependence of the position of the body and head on the swimming speed and method of diving kicks.

Methods: In this work was used method of collecting data in real conditions by measuring devices and statistical evaluation of collected data.

Results: The results are presented by graphs both in the text of this work and in attachment for its large size. The results of all probands are presented in summary graphs and for selected values the degree of association is calculated in tables using the Pearson correlation coefficient. The main result is the confirmation of the reduction of the deviation from the horizontal position when comparing the slow and higher swimming speeds of both flutter and frog kick. The most effective way for a diver to overcome 50 meters below the water surface was determined to be a flutter kick at medium speed (average 0,37 m/s).

Keywords: scuba diving, body position, head position, air consumption, speed of swimming, flutter kick, frog kick